

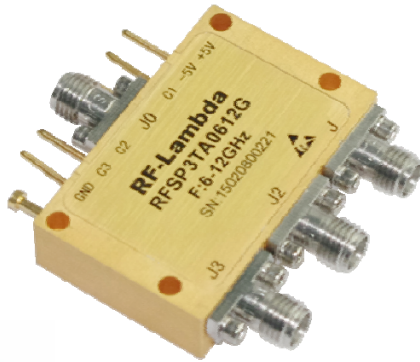


RF-LAMBDA

The power beyond expectations

RFSP3TA0612G

Absorptive 6-12GHz Coaxial SP3T Switch



Features

- Wide Band Operation 6-12GHz
- TTL compatible driver include
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request
- Hermetically sealed package up to 60,000ft available upon request.

Electrical Specifications, TA = +25° C, With Vdd = +5V, Vss = -5V & VCTL = 0/ +5V

Description	PN: RFSP3TA0612G			
	SP3T Absorptive Switch			
	Low Power Cold Switching			
Parameters	Min	Typ.	Max	Units
Frequency Range	6-12			GHz
Insertion Loss		2.1	2.4	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Isolation	60	70		dB
Input VSWR		1.3	1.5	ratio
Output VSWR		1.3	1.5	ratio
Power Dissipation (CW)		0.3		W
IM3		40		dBc
1dB Compression P1dB		30		dBm
Switching Speed			50	ns
Weight	50			g
Impedance	50			Ω
Biasing(+5V/-5V)	120/50			mA
Input /Output Connector	SMA-Female/SMA-Female (Standard)			
Finishing	Gold Plating			
Material	Aluminum			
Seal	Hermetically Sealed (optional)			

Absorptive Coaxial Single Pole Three Throw Switch 6-12GHz



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Absolute Maximum Ratings

Biasing	+5V/-5V
TTL Control Voltage	+5V/0V
RF Input power	+30dBm
Operating Temperature(°C)	-45 ~ +85
Storage Temperature(°C)	-50 ~ +125

Ordering Information

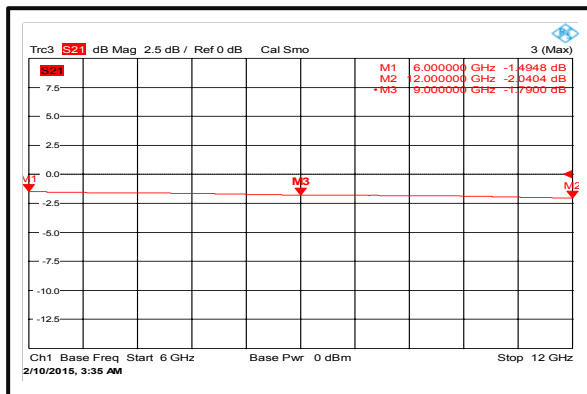
Part No	ECCN	Description
RFSP3TA0612G	EAR99	SP3T 6-12GHz PIN Diode Switch

Environment specifications

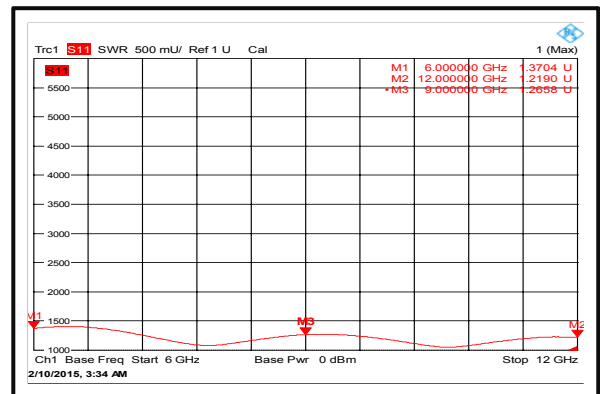
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°C
Shock	20G for 11msc half sin wave,3 axis both directions

performance plots

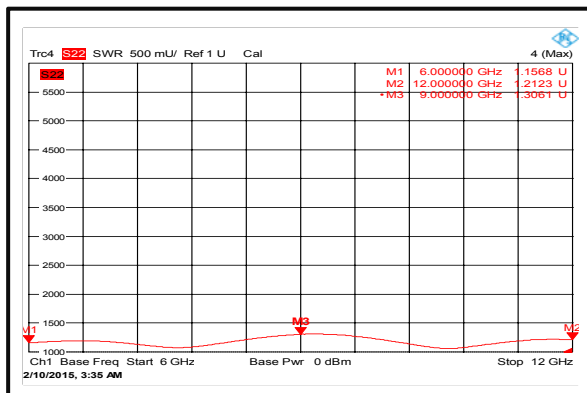
Insertion Loss



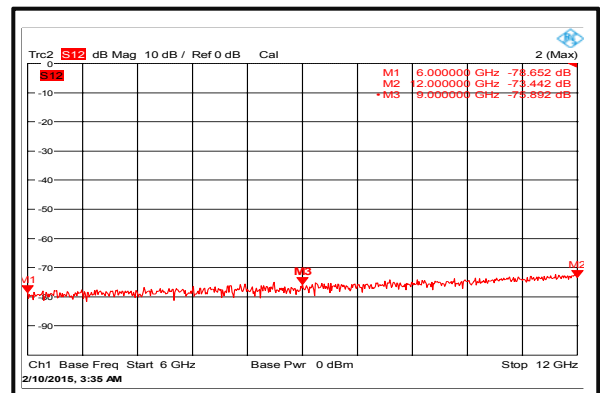
Input VSWR



Output VSWR



Isolation



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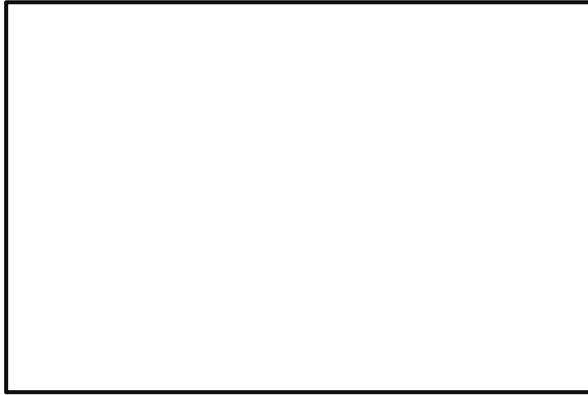


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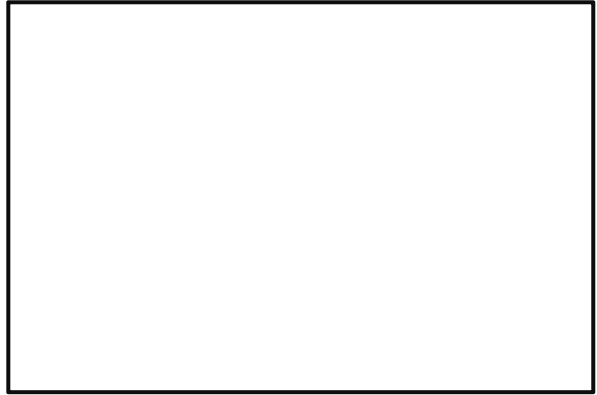
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Output Third Order Intercept (IP₃)



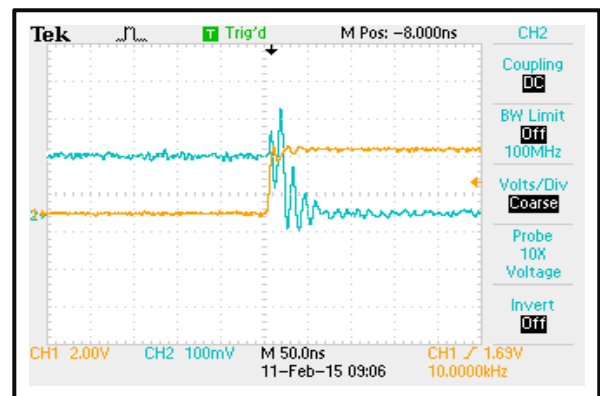
P1dB vs. Frequency



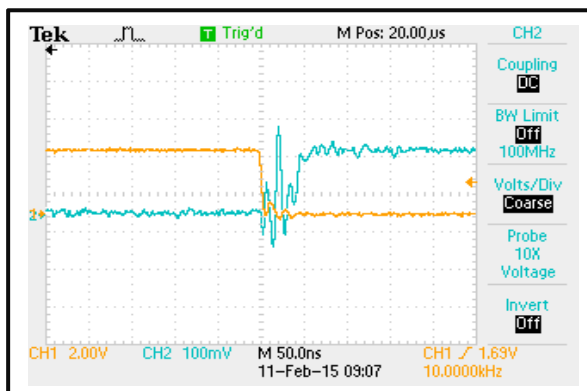
The datasheet for test 1dB



Switching Speed



Switching Speed

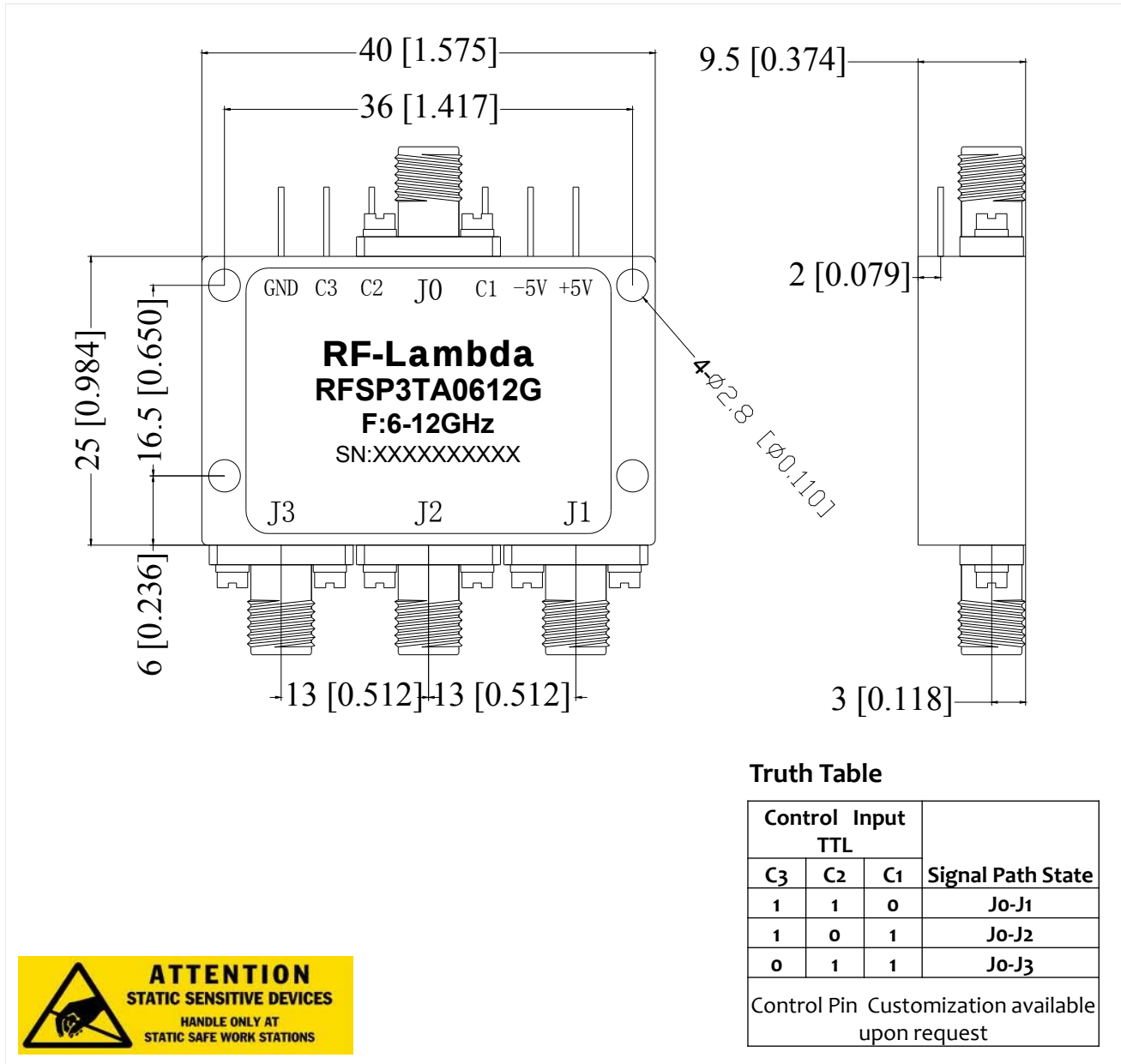


Absorptive Coaxial Single Pole Three Throw Switch 6-12GHz



Outline Drawing:

All Dimensions in mm (inches)



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